

THE EFFECTS OF NETWORK GROUPS ON MINORITY EMPLOYEE TURNOVER INTENTIONS

Raymond A. Friedman and Brooks Holtom

Companies in the United States are concerned with retaining minority employees to maintain or increase the diversity of their workforce. Here we assess the value of one approach companies have used to retain minority employees: "network" groups. Based on data obtained from a large company with extensive network groups, this study compares the turnover intentions of minority employees who have joined one of the company's network groups to those who have not joined one of the company's network groups. The data show that employee network groups can be useful in helping companies retain managerial-level minority employees. Extensive recommendations are provided to help organizations maximize the effectiveness of network groups.
© 2002 Wiley Periodicals, Inc.

For over 30 years, U.S. companies have been concerned with retention of minority employees, initially to better comply with affirmative action requirements (Gold, 1993) and later to increase diversity (Jackson et al., 1992; Triandis, 1995). We expect that retention of minority employees is affected by all of the factors that influence retention in general, including job satisfaction, organizational commitment, and perceived availability of alternative jobs (Griffeth, Hom, & Gaertner, 2000; Maertz & Campion, 1998). In addition, however, companies have developed various programs designed to support minority employees in particular, such as mentoring programs (Thompson, DiTomaso, & Blake, 1988), compensation systems designed to

reward managers who retain minority employees (Crump, 1988), and intensive training and intervention programs (Alderfer, 1992). In this article we assess the impact of one approach to supporting minority employees: minority employee "network" groups. These groups—usually initiated by the employees themselves, but supported by the company—are designed to help minority employees be better connected to each other, and thus gain greater access to information, social support, and mentoring.

If network groups work as envisioned, they should help companies retain minority employees. Yet, there has been no research assessing the impact of network groups on turnover intentions of minority employees. Are all the claims made about network

Correspondence to: Raymond A. Friedman, Owen Graduate School of Management, Vanderbilt University, 401 21st Avenue South, Nashville, TN; telephone: 615-322-3992; e-mail: Ray.Friedman@Owen.Vanderbilt.edu

Employee network groups are formally established groups of employees—usually women or minorities—that get together for various activities.

groups really valid? Should companies support network groups? Do network groups have the same effects for minority employees at all levels of the organization, or do they help some employees more than others? Can a poorly run network group still help? These questions need to be answered for companies to know how to respond sensibly to the formation of groups. In our study we seek to answer these questions by examining data from one company that has extensive network groups. We are able to compare the turnover intentions of employees who have joined one of the company's network groups with those who have not joined one of the company's network groups. We also test whether the effects of network groups are stronger for some minority employees than others, and whether satisfaction with a network group among members can affect its impact on retention.

Background on Network Groups

Employee network groups are formally established groups of employees—usually women or minorities—that get together for various activities (see Childs, 1992; Friedman, 1996; Hyde, 1993). Some of the types of activities include social gatherings, discussions about what is going on in the company (e.g., new technologies, corporate strategy, career systems), or fundraising for minority scholarships. These meetings are often run by group members, but they may also include senior executives or HR managers who are invited to provide talks about particular issues and/or hear concerns that members may have about the company. Meetings are usually over lunch or after work and tend to occur about once a month or every other month. Many groups also organize a yearly conference with outside speakers, seminars, and workshops (topics can range from sales techniques to personal financial planning to discussions of ethnic literature). Corporate policies toward network groups vary (Friedman & Bogar, 1999), but typically require groups to state their purpose, have some type of charter and leadership structure, and be open to anyone in the company.

The stated purpose of most groups is to enhance the careers of members by provid-

ing social support, information, and leadership opportunities to members. According to Friedman (1996), a key challenge facing minorities is that most people tend to interact more comfortably with those who are similar. If you are a minority in a company, however, there may be few who are similar and they may be hard to locate. The dominant cultural norms are most likely of the White majority (Ibarra, 1993, 1995). As a result, minorities may not have as many close, personal ties at work, making it likely that they will receive less social support and mentoring than Whites. This potential disadvantage may have far-reaching effects. For example, Seibert, Kraimer, and Liden (2001) found that individuals with multiple mentors reap greater career benefits than those who have only one mentor. Minorities also may not have as many casual contacts (Granovetter, 1973), those that are less deep and personal, but still important in building a social network and gaining access to information.

Network groups provide minorities with knowledge about other minorities in the company and opportunities to meet with them and interact comfortably. This should lead to more deep, personal relationships at work, as well as a broader network of casual connections. These contacts, in turn, provide information about the company and how to adapt to it, as well as opportunities for mentoring and support. The end result should be enhanced career development through community building and, ultimately, reduced voluntary turnover. While network groups may occasionally communicate complaints to management about corporate policies or how people are treated (e.g., Creed & Scully, 1998; Friedman & Deinard, 1996), the primary purposes of network groups are community building and career building, not advocacy.

Turnover—From Attitudes to Social Ties

Much of the current theory and research on voluntary turnover springs from the ideas of March and Simon (1958) on the perceived ease and desirability of leaving one's job. The perceived ease of movement is heavily influenced by job alternatives and the perceived desirability of movement is heavily influenced

by job satisfaction. Job attitudes combined with job alternatives predict whether employees intend to leave an organization, which is the direct antecedent to turnover.¹ The research investigating this attitude-driven process and its component parts has been extensive [Maertz & Campion (1998) and Griffeth et al. (2000) provide excellent reviews], confirming that job satisfaction and organizational commitment have consistent, statistically significant, and negative relationships with turnover. Although researchers found significant results, these results are modest, at best [e.g., attitudinal variables control only about 4 to 5% of the variance in turnover; Griffeth et al. (2000)], leading Maertz and Campion (1998) to conclude that many other meaningful topics have been neglected.

A number of factors that have been empirically associated with retention are not attitudes but are organizational in nature. Inducements to stay can include commitment to particular work groups or projects, rather than commitment to an organization or a job. For example, many companies use teams to induce attachments (Cohen & Bailey, 1997). Reichers (1985) labels these attachments “constituent commitments” and includes attachment to unions, teams, and other work-related groups. If employees do not want to lose valued relationships with individuals and groups by leaving, they are more psychologically attached to the organization and therefore less likely to leave.

Recent theoretical and empirical work developing a concept of job embeddedness by Lee et al. (1999) and Mitchell and colleagues (2001) emphasizes the importance of on-the-job and off-the-job social attachments on turnover decisions. One of the three dimensions of their job embeddedness construct is called “links.” Links are characterized as formal or informal connections between a person and institutions or other people. The higher the number of links the person has, the more an employee is bound to the job and the organization.

In two separate organizations, Mitchell et al. (2001) demonstrated that people who are embedded in their jobs have a lower intent to leave and do not leave as readily as those who are not embedded. Further, job embedded-

ness also predicts turnover above and beyond a combination of perceived desirability of movement measures (job satisfaction, organizational commitment) and the perceived ease of movement measures (job alternatives, job search). Thus, job embeddedness assesses new and meaningful variance in turnover in excess of that predicted by the major variables included in almost all the major models of turnover. Moreover, the links dimension, which is conceived to be a measure of social ties was significantly and negatively correlated with both intent to leave and voluntary quitting. Thus, initial empirical results support theoretical connections between social ties and reduced turnover.

While social ties in general have been shown to reduce turnover, one particular type of social tie has been shown to be especially important, that of a mentor. Mentors work with protégés to address early career needs for guidance, support, and affirmation (Levinson, Darrow, Klein, & Lim, 1978), which can help them take more risks, and spend less time in unfulfilling jobs (Murray & Owen, 1991). In a large-scale national study, Ragins, Cotton, and Miller (2000) examined the impact of the presence of a mentor, the type of mentor (formal or informal), and the quality of the mentoring relationship on a protégé’s intentions to quit. They found that the presence of mentors—especially informally established mentors—influenced job attitudes among protégés. Further, a subject with a high-quality relationship with a mentor had less of an intention to quit.

In sum, recent research on turnover shows that turnover is affected not just by attitudes toward one’s job or availability of alternatives, but also by social connections within organizations. Social ties provide inherent benefits to employees, as well as resources that reduce political risk and enhance support and career development.

Network Group Impact on Turnover Intentions

Joining Network Groups

Network groups are designed to produce exactly the kinds of social ties that should reduce

Recent theoretical and empirical work developing a concept of job embeddedness by Lee et al. (1999) and Mitchell and colleagues (2001) emphasizes the importance of on-the-job and off-the-job social attachments on turnover decisions.

In sum, we expect that the benefits of network groups will be especially pronounced among those at higher levels of the organization, given their greater dependence on social networks.

voluntary turnover. First, they allow minorities to meet other minorities, which—given the general preference for homophilous interactions (McPherson & Smith-Lovin, 1987)—should produce more relationships. These relationships are likely to provide contacts in other functional areas of the organization as well as at higher levels within the organization, reduce social isolation, and enhance chances for political support and mentoring (Thomas, 1990). As Friedman, Kane, and Cornfield (1998) have shown, African American employees in companies with network groups are more likely to report having mentors, which, in turn, produce higher levels of career optimism.

Further, greater access to information and resources—both of which empower employees—should enhance individual motivation and work performance (Hackman & Oldham, 1980; Spreitzer, 1996). Additionally, individuals who expand their network may be able to add value to their organizations by filling a broker or boundary spanner role within the organization (Burt, 1997). Improved work performance and adding value should increase an individual's organizational reputation (Kilduff & Krackhardt, 1994)—an asset that employees are unlikely to want to forfeit by organizational departure.

Based on these effects, we propose that network groups will reduce turnover. Moreover, we believe that a major portion of that effect will occur via the impact of network groups on social embeddedness.

Hypothesis 1: Those who join minority employee network groups will report lower turnover intentions than those who do not join network groups.

Hypothesis 2: The impact of joining network groups on turnover intentions will be mediated by the effects of network groups on social embeddedness, including enhanced mentoring and social inclusion.

This mediation process we should point out, applies to all effects of joining on turnover intentions—both direct relationships (as posited in Hypotheses 1) and moderated relationships (as noted below in Hypotheses 3 and 4).

Organizational level. While social ties should enhance all employees' attachment to their organization, the added benefit of social embeddedness should be especially helpful among managerial employees. As Hill (1992) points out, the transition into the role of manager can be very difficult because it involves a shift away from a position in which you can do the work yourself to one in which you are completely dependent on others to get things done. To be effective as a manager requires networking, coalition building, and more subtle influence tactics (Pfeffer, 1992). Also, the required tasks become somewhat less clear, making coaching and mentoring even more important for success. Compared to those below the managerial level, networks are especially critical for managers. Similarly, an entry-level manager compared to a top executive has a more limited scope of responsibilities and fewer people judging his or her work. Thus, networks are much more important for executives than first-level managers (Kotter, 1982). In sum, we expect that the benefits of network groups will be especially pronounced among those at higher levels of the organization, given their greater dependence on social networks.

Hypothesis 3: Joining network groups will reduce turnover intentions more for minority employees at higher levels within an organization.

Diminishing effects. While we have hypothesized previously that the impact of network groups should be greater for those higher in an organization, it is also plausible that the effects diminish at some point. That is, those at very high levels of an organization are likely to be well enough connected that network groups will be of little consequence for them. If this is true, then we would expect a curvilinear relationship: Network groups have less impact on turnover for nonmanagers, a great deal of impact for low- or mid-level managers, and less impact for top-level managers. Thus, as an alternative to Hypothesis 3 (H3), we propose the following:

Alternative Hypothesis 3: Joining network groups will reduce turnover intentions mostly for minority employees at middle

levels within an organization, while having a smaller impact for minority employees at the lowest and highest levels in an organization.

Network group resources. Network groups vary in many ways. One way may be especially consequential for their impact on turnover—the degree to which the group includes members who are at the very top levels of the company. A group made up of only lower-level employees, for example, will help expand social support for members, but it will not produce access to information and support from the top echelons of the company. By contrast, those groups that happen to include in their membership top-level executives can provide members with additional benefits. Those in higher-level positions tend to have greater formal decision-making authority over the allocation of resources than those in lower-level positions. This resource-based power, in addition to their legitimate power (French & Raven, 1968) may allow them to sponsor protégés. In other words, high-level sponsors may be able to provide a protégé with favorable and timely exposure, opportunities to engage in challenging assignments as well as provide career advice and coaching (Seibert et al., 2001). Positive relations with contacts at higher levels should therefore provide employees with greater access to these benefits.

The first author has observed some of these effects directly. At one meeting of the African American network groups at General Electric, senior managers met with several young presenters after a panel discussion to provide feedback and suggested that the young managers could call them later if they needed help or advice. One senior manager noted that there were many people in the room that day that frequently hire people for middle-management jobs or influence who gets hired. These were valuable contacts for younger managers to make. And, during one of the information sessions, when younger members had questions about corporate strategy, there were several people there who could answer their questions because they were involved in those discussions within the company. All of these benefits were absent in other groups that did not have as much senior-level participation.

Thus, with high-level minority executives participating in the network group, the impact of the connections made by joining the network will be greater, enhancing the effectiveness of network groups in reducing turnover.

Hypothesis 4: Joining network groups that include more high-level managers and executives will reduce turnover intentions more than joining network groups with fewer high-level members.

Diminishing impact. Returning to the diminishing impact idea, we should consider the fact that executive-level minority managers already do have access to top-level management. As a result, the benefits of being in a group with more top-level managers may be less for them than for lower-level managers and employees. While it may still be very helpful for top-level managers to have a forum for networking with other top-level minority managers, the overall impact on turnover may be less for them than for others in an organization.

Hypothesis 5: The impact of having high-level executives in a network group will be less for higher-level employees than for lower-level employees.

Network Group Experience

Once employees join network groups, they may have different experiences within those groups. For some, the group may be very effective at creating social ties and political support. For others, the group may not prove to be as satisfying. Indeed, we should expect that not all groups are equally well run and accommodating to members. In a survey of National Black MBA members, some reported that their network groups became highly politicized internally, or engaged in unproductive battles with the company (Friedman, 1996). Those groups were not as attractive to these employees. Even among those who actually join groups, some will be very pleased with the direction of the group and how it operates, while others will be less pleased.

Though there is no research addressing this issue specifically, we believe the general

With high-level minority executives participating in the network group, the impact of the connections made by joining the network will be greater, enhancing the effectiveness of network groups in reducing turnover.

To test the hypotheses, we used data from a large-scale research project on employee network groups.

findings from the turnover literature regarding the impact of constituent commitment are informative. As reported in a meta-analysis by Griffeth et al. (2000), statistically significant mean-corrected correlations exist between voluntary turnover and co-worker satisfaction (−.10), supervisor satisfaction (−.10), and work-group cohesion (−.14). Collectively, the studies behind these meta-analytic results suggest that satisfaction with various constituents in an organization is negatively related to subsequent organizational departure. Thus, we can expect that those who are more satisfied with network groups—like satisfaction with other parts of the organization—will be less likely to want to leave a company.

Hypothesis 6: Among network group members, those who are more satisfied with the network group will have lower turnover intentions.

Satisfaction with a group may also enhance social embeddedness. In a variety of areas—teams, interpersonal relations, and organizations (Hall, Schneider, & Nygren, 1970; Reichers, 1985)—people are more committed and engaged if they are more satisfied with and attracted to the people, groups, and institutions involved. So too, we should expect that those who have greater levels of satisfaction with their network group should become more involved, resulting in more social ties and mentors and, thus, more social embeddedness. And, as we have already argued, social embeddedness should reduce turnover intentions. Thus, social embeddedness should mediate the relationship between network group satisfaction and intent to remain in an organization.

Hypothesis 7: The relationship between satisfaction with network group and lower turnover intentions will be mediated by social embeddedness.

Method

Research Site and Sampling

To test the hypotheses, we used data from a large-scale research project on employee net-

work groups. In 1998 we collected data from one large company with over 100,000 employees across 12 states. This company has 20 network groups, some of which were started as early as 1974. Among these 20, eight are primarily African American, two are Hispanic, one is Asian, one is American Indian, and one is African American and Asian. There are also groups for disabled, and gay/lesbian, and female employees. Our focus in this article, however, will be on the African American, Hispanic, and Asian groups.²

The first step of our research strategy was to interview two leaders of each network group to find out about each group's history. Second, we distributed a survey via the company's mail system that was to be filled out and returned directly to the researchers. Our goal for the project was to make sure that we received responses from all levels of the company, from men and women, and from all racial/ethnic groups (African American, Caucasian, Asian, Hispanic, and American Indian). Also, we wanted to survey those who chose not to join (not just members of network groups) and White male employees (not just women and minorities). Finally, we wanted to include employees from each of the company's two geographic regions (the two parts were joined by a recent merger; all groups, however, remained within one or the other former company). To achieve these goals, we created 80 cells (five ethnic groups, by two genders, by four organizational levels, by two regions). For each cell, the company used its HR database to select a random set of 100 employees (expecting about a one-third-response rate). We sent out a total of 5,793 surveys (there were less than 100 employees in some cells), and received 1,583 responses. Thus, we had a 27% response rate for this phase of our survey.³

In the survey we asked whether the respondent was familiar with any of the network groups within the company, and if so, what was the one group that they were most familiar with. We then asked whether they were members of that group. This allowed us to see if we received a usable sample of members from each network group, and to differentiate between those who joined network groups and those who did not. For some of the smaller groups (e.g., some Black groups

in smaller states), not surprisingly, we received surveys from only a handful of members. Because we potentially wanted to be able to compare responses across network groups, we sent additional surveys (called “phase II”) to members of these smaller groups. All surveys were anonymous. When we sent surveys out to members of particular groups, we instructed participants to fill out the survey only if they had not done so already.⁴ Response rates for this phase of the survey were approximately 35%. In the end, we received a total of 1,910 surveys.

The survey had three levels of questions. First, we included items about the respondent’s experience in the company, items about the respondent’s job, and demographic items (including sex, race, age, organizational level, region, and years in the company). These were asked of all respondents. Second, we asked questions about particular network groups. These were asked of all respondents who reported some familiarity with any group. Third, more detailed questions about particular network groups were asked of respondents who were actually members of network groups.

The subsample used for this study included all African American, Hispanic, and Asian employees. This sample included 514 Blacks, 312 Asians (primarily American-born Chinese), and 325 Hispanics. Sixty-two percent of Blacks were members of network groups, as were 26% of Asians, and 34% of Hispanics. The sample was evenly split between male and female respondents. Mean number of years with the company was 14.86 and the median age was 41–45. Sixty-six percent of the respondents had at least a college degree (6.2% had only a high school degree). The distribution by organizational level was craft, 30.8%; first-level manager, 33.3%; second-level manager, 28.71%; and top-level management, 5.0%. Responses were evenly split between the two sides of the company, and 86% of the responses were from the initial phase of the survey.

Measures

The survey included items about turnover intentions, satisfaction with the network

groups, and social inclusion. An exploratory factor analysis of these items, shown in Appendix I, led to the construction of three scales. First, we created a two-item scale measuring turnover intentions. The items used in this scale were “I would be very happy to spend the rest of my career at this company” and “To what extent have you seriously thought about changing companies.” Second, we developed a three-item measure of social inclusion. Third, we created a five-item measure of satisfaction with network groups. (See Appendix 1.) Fourth, we included one item that asked if the respondent had a mentor at the company (“I have a mentor at this company”). All items used a 1–7 Likert scale.

In addition to these scales, we examined each network group to see what percentage of its active membership included top executives. Those in groups that had 2% or more of its active members from top management ranks were assigned a code of “1” for higher percentage of top management, and “0” if fewer than 2% were from top management ranks. The reason for choosing 2% was that approximately half the groups had 2% or more. Last, as controls we added data on each respondent’s age, education level, years in company, rank, sex, former company, and survey phase. Sex was coded “0” for males and “1” for females. Zero-order correlations for all variables are shown in Table I.

Results

We tested Hypothesis 1 by regressing turnover intentions on network group joining, along with control variables. As shown in Model 1 in Table II, joining was not associated with turnover intentions in the overall sample. Next, we tested Hypothesis 3, which suggested that the benefits of network groups—and thus their impact on turnover—would be stronger among those at higher levels within the organization. We did this by adding to the model an interaction term for joining and organizational level. As shown in Model 2 in Table II, this interaction term was significant, indicating that among those higher in the company, joining network groups is associated with reduced turnover

We included items about the respondent’s experience in the company, items about the respondent’s job, and demographic items.

TABLE I Means, Standard Deviations, and Correlations^a

Variable	Mean	SDD	1	2	3	4	5	6	7	8	9	10	11	12
1 Education	2.88	.89												
2 Company	1.56	.59	-.11*											
3 Rank	2.08	.90	.43*	-.03										
4 Phase	.14	.35	-.09*	.05	-.15*									
5 Sex	1.49	.51	-.10*	-.04	-.15*	.16*								
6 Years in org.	14.8	9.72	-.30*	.08*	.10*	.14*	.11*							
7 Age	2.72	1.39	-.18*	.09*	.10*	.09*	.03	.75*						
8 Social inclusion	3.33	1.49	-.03	.01	.03	.02	.01	-.02	-.02					
9 Mentor	2.84	2.01	.03	.12*	.08*	.05	.00	-.10*	-.12*	.28*				
10 High % top mgmt	.28	.45	.08*	-.04	.16*	.32*	.09*	.15*	.11*	.04	.07*			
11 Join	.44	.50	.12*	-.10*	.26*	.36*	.11*	.20*	.14*	.04	.07*	.31*		
12 Turnover intent	3.60	1.77	.29*	-.01	.141*	-.04	-.01	-.22*	-.24*	-.39*	-.14*	.05	.01	
13 Satis. with groups	4.60	1.39	-.09*	.14*	-.06	.22*	.03	.17*	.17*	.16*	.25*	.21*	—	-.15*

^aN = 1,151 for all correlations that do not include "Satisfaction with Groups." All correlations greater than .06 are significant at the .05 level; all those greater than .08 are significant at the .01 level; all those greater than .10 are significant at the .001 level. N = 538 for correlations that include "Satisfaction with Groups." For these, correlations greater than .09 are significant at the .05 level; those greater than .14 are significant at the .001 level.

*p < .05.

TABLE II Regression Models Predicting Turnover Intentions

Model	(1) ^a	(2) ^a	(3) ^a	(4)	(5)
Model R ²	.15	.15	.28	.13	.27
F	6.21	5.90	12.37	13.85	27.18
df	26	26	28	10	12
N	940	940	917	940	904

Variable	Beta	Beta	Beta	Beta	Beta
Controls					
Age	-.24***	-.24***	-.22***	-.23***	-.22***
Education	.22***	.22***	.18***	.22***	.18***
Years in company	.01	.01	-.04	.01	-.04
Rank	.05	.10*	.09*	.07	.09**
Sex	.00	.00	.01	.02	.02
Company	.00	.00	.01	.00	-.01
Phase	.03	.01	.01	.04	.03
Join	-.04	.12	.01	-.01	.00
Join × Rank		-.19*	-.05		
High % top execs				.09	.08
Join × High %				-.08#	-.04
Mentor			-.06*		-.06*
Social inclusion			-.37***		-.37***

Note. Population: Black, Asian, and Hispanic employees.

^aAlso includes as controls a dummy variable for each network group. These are not reported here due to space limitations.

$p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$ (hypothesized predictions are reported one-tailed; others are reported two-tailed).

intentions. Similarly, we tested Hypothesis 4, which suggested that minorities in network groups with more top managers would be especially likely to exhibit reduced turnover intentions, by adding to the base model an interaction term for joining and having a higher percentage of top managers. This, too, showed a significant effect, providing support for Hypothesis 4 (see Model 4 in Table II).

To test alternative Hypothesis 3, that the beneficial impact of network groups on turnover would diminish at very high levels within the organization, we estimated a curvilinear model. In this model, we included both the joining by rank interaction term, and an interaction term for joining by rank-squared, as well as our controls. The interaction by rank-squared term was not significant, indicating that there is no diminishing of the benefits of network groups at high levels within the organization.⁵ We also tried to get a clearer picture of the pattern of ef-

fects by running Model 1 separately for each employee level. While none of the results for these subsamples was significant, it was clear from the size and direction of the coefficients that network groups help reduce turnover about the same across all levels of management, but do not reduce turnover at all for nonmanagerial employees.

To test Hypothesis 5, that the beneficial impact of having top management be members of network groups would be more pronounced among lower-level employees, we estimated a model that included a three-way interaction between joining, rank, and having a high percentage of top management members (this model also included all lower-level interaction terms). The three-way interaction was not significant, indicating that the benefits of having top-level executives in a group are not diminished for higher-level network group members. Again, we tried to get a clear picture of the pattern of effects by running Model 4 (with the join × high

percentage interaction term) separately for each employee level. None of the results for these subsamples were significant and no clear patterns emerged.

With these relationships established, we next tested to see if social embeddedness mediated the relationships where effects of network groups were found, as predicted in Hypothesis 2. Using Baron and Kenney's (1986) analytic approach, we assessed, first, whether joining, joining × rank, and joining × higher percent of top managers were significantly associated with our two measures of social embeddedness: mentoring and social inclusion. As shown in Table III, joining a network group is not associated with greater mentoring and more inclusion for the overall sample (Models 1 and 4), but it is associated with greater mentoring and more inclusion for those higher in the organization (Models 3 and 6) and for those in network groups with a high percentage of members from top management (Models 2 and 5). We then added mentoring and inclu-

sion to the original models to see if these variables would predict turnover intentions and lower the coefficients for joining (joining × rank, and joining × high percentage of top management). In both cases (Models 3 and 5 in Table II), mentoring and social inclusion did significantly predict turnover intentions and the size of the interaction terms were reduced in size and no longer significant. These results show that at least some of the effects of joining network groups on reduced turnover intentions can be explained in terms of the effects of joining on social embeddedness—at least for managerial employees and those in groups that include many executives.

Turning to Hypothesis 6, about the impact of satisfaction with network groups on turnover intentions, we examined just the population of Asians, Hispanics, and African Americans who were members of network groups. As shown in Table IV (Model 1), higher satisfaction with network group is associated with lower turnover intentions.

TABLE III Regression Models Predicting Social Embeddedness

Model	DV: Mentor			DV: Social inclusion		
	(1) ^a	(2)	(3) ^a	(4) ^a	(5)	(6) ^a
Model R ²	.03	.04	.08	.01	.01	.04
F	2.65	3.65	2.72	1.07	1.31	1.25
df	26	10	27	26	10	27
N	931	931	931	926	926	926
<i>Variable</i>	<i>Beta</i>	<i>Beta</i>	<i>Beta</i>	<i>Beta</i>	<i>Beta</i>	<i>Beta</i>
Controls ^a						
Age	-.08	-.09	-.08	.04	.02	.03
Education	-.08	-.06	-.08	-.09*	-.09*	-.09*
Years in company	-.13*	-.11*	-.14*	-.12*	-.09	-.12*
Rank	.12**	.11**	-.10	.07	.05	.00
Sex	.03	.02	.03	.02	.01	.02
Company	-.02	.05	-.13*	-.04	.01	-.05
Phase	.03	.02	-.02	-.00	-.01	.02
Join	.04	.01	-.14*	.02	-.02	-.19*
High % top execs		-.03			-.09	
Join × High %		.11*			.15**	
Join × Rank			.23*			.26*

Note. Population: Black, Asian, and Hispanic employees.

^aAlso includes as controls a dummy variable for each network group. These are not reported here due to space limitations.

#*p* < .10, **p* < .05. ***p* < .01. ****p* < .001 (hypothesized predictions are reported one-tailed; others are reported two-tailed).

TABLE IV Regression Models Predicting Turnover Intentions

Model	(1)	(2)	(3)
Model R^2	.18	.18	.28
F	3.41	3.44	13.02
df	24	25	25
N	406	404	392

Variable	Beta	Beta	Beta
Controls ^a			
Age	-.24***	-.26***	-.20**
Education	.22***	.22***	.18***
Years in company	.02	.01	-.05
Rank	-.05	-.02	.05
Sex	-.01	-.01	.04
Company	.00	-.02	.01
Phase	.04	.04	.05
Satisfaction with group	-.08*	-.06	-.01
Mentor		-.10**	
Inclusion			-.35***

Note. Population: Black, Asian, and Hispanic network group members.

^aAlso includes as controls a dummy variable for each network group. These are not reported here due to space limitations.

$p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$ (hypothesized predictions are reported one-tailed; others are reported two-tailed).

Further, as shown in Table V, higher satisfaction is associated with greater social embeddedness, i.e., greater mentoring and social inclusion. To test Hypothesis 7, we once again followed the Baron and Kenny approach to studying mediation. We added our social embeddedness measures into the first model, and found that mentoring (Table IV, Model 2) and inclusion (Table IV, Model 3) both predict turnover intentions; with those variables added to the models, satisfaction is no longer significantly associated with turnover intentions. Thus, member satisfaction with network groups appears to generate greater social embeddedness, which reduces turnover intentions.

Discussion and Recommendations

Our data show that employee network groups can be useful tools for helping companies retain managerial-level minority employees (although not nonexempt employees), thereby assisting them in meeting their diversity goals. Joining network groups, it appears, is associated with reduced turnover in-

tentions for higher-ranked employees. This is critical for companies that are moving from “creating diversity” at entry levels within the organization to “managing diversity” by ensuring that minority employees succeed once they are hired into the organization (Thomas, 1990). The benefits of employee network groups may be especially helpful because formal mentoring programs have met with little success (Kram, 1985) and diversity training can be somewhat controversial (Lynch, 1997). Companies desiring to increase retention rates among minority employees and better manage the careers of their diverse employees should consider supporting network groups.

Recommendation #1: Encourage and support minority employee network groups.

We know from this study that social embeddedness is the key to network groups' success. One of the primary reasons why network groups make a difference for managerial-level employees, and especially those who join groups with active top-management

TABLE V Regression Models Predicting Inclusion and Mentoring

	DV: Mentor	DV: Inclusion
Model R ²	.20	.12
F	3.96	2.19
df	24	24
N	406	396

Variable	Beta	Beta
Controls ^a		
Age	-.17*	.11
Education	-.06	-.13*
Years in company	-.09	-.23**
Rank	.23***	.28***
Sex	.06	-.01
Company Phase	-.11	-.12
Satisfaction with group	.25***	.20***

Note. Population: Black, Asian, and Hispanic network group members.

^a Also includes as controls a dummy variable for each network group. These are not reported here due to space limitations.

#*p* < .10. **p* < .05. ***p* < .01. ****p* < .001 (hypothesized predictions are reported one-tailed; others are reported two-tailed).

members, is that groups enhance social inclusion and increase mentoring. Social engagement and support appear to make African American, Asian, and Hispanic managers more likely to want to stay with a company. This result is completely consistent with emerging knowledge in the turnover literature, but is important to highlight since this is exactly the area in which minorities have experienced persistent problems (e.g., Ibarra, 1995; Thomas, 1990). The implications of our findings are that, even if companies do not have formal network groups, they should focus especially on the issue of social embeddedness if they want to increase minority retention.

Recommendation #2: To reduce minority employee turnover, focus on policies that enhance minority employee social embeddedness.

That being said, network groups are an effective way to enhance social embeddedness. While some try to formally assign employees to particular mentors, network groups produce support in a more natural and less contrived way. By creating more opportunities for in-group support, employees seem to be able to find and develop, on their own, more mentoring and social contacts. We should point out that increased mentoring activity among network group members is not just derived from mentoring by higher-level minorities. A study by Friedman, Kane, and Cornfield (1998) showed that those in companies with network groups were also more likely to have a white mentor than those in companies without network groups. Network groups help people create more cross-race social ties, not just within-group social ties.

Our study does, however, point out that network groups are not nearly as useful for nonmanagerial employees as they are for managerial employees. This makes sense because the core benefits of network groups—developing social support networks and extensive contacts within an organization—are much more important for managers than nonmanagers. Nonetheless, it is politically difficult for network groups to explicitly exclude nonmanagers. Company policies usually require that groups be open to everyone, and minority employees usually loathe saying that nonmanagers cannot participate. What they can do, however, is set up sessions that explicitly discuss issues relevant to managers, ensure that scheduling of meetings is done in such a way that managerial employee participation is maximized, and possibly even have subgroups within employee network groups that are just for managers. There is no reason to believe that nonmanagerial participation is harmful in any way, rather that the positive impact of groups on turnover is more significant for managers.

Recommendation #3: Focus the activities and schedules of network groups on the needs of managerial-level employees.

What, though, can companies do to make groups form and develop? Network

groups are, by definition, self-organized. Groups are not formed by management. What, then, can companies do to encourage groups? The most important step is to let employees know that the company welcomes groups and will not respond with anger and suspicion when groups form, as occurred early in the history of network groups (Friedman & Deinard, 1996) and still occurs to this day among those who see network groups as being “union-like.”

Recommendation #4: Provide employees with contacts to network group leaders at other companies, signal to employees that network groups are welcomed, and have top management attend some network group meetings.

Our study also suggests that groups are not all the same in their effectiveness at reducing turnover intentions. First, it is critical that groups be run well. Members who are less satisfied with their groups participate less and develop fewer social ties—diminishing the impact of having network groups. For groups to help a company retain employees, they must do what it takes to meet members’ needs. Our study here does not show exactly what it takes to increase member satisfaction, but from field work with network groups (Friedman, 1996) we expect that satisfaction with groups depends on six factors: (1) making sure that the groups do not become factionalized or political; (2) maintaining some awareness of how to develop new leaders and make smooth transitions between leaders; (3) having a variety of activities, so that the group provides something for people with different interests; (4) not becoming just a social club (although socials are often very helpful); (5) attracting high-potential minority employees, making membership in the group a symbol of success; and (6) maintaining good relations with the company. All of these, however, come down to the quality of leadership within network groups, and the leaders’ level of experience and maturity. To bolster these factors, we suggest:

Recommendation #5: Encourage the most highly skilled employees to be leaders of

network groups, and help them build contacts with experienced network group leaders in other companies.

Our study shows that groups are more effective if they include top-level minority managers among members. Having top-level management participation gives groups legitimacy, provides access to strategic-levels of decision-making within the organization, and provides more powerful allies to build effective social networks. Of course, not all companies will have top-level minority managers, but for those that do have minority executives, it is extremely important that they participate in relevant network groups. This is one way in which the success of some minorities at the very top can lead to enhanced retention of minorities throughout an organization.

Recommendation #6: Encourage participation in network groups by top-level minority managers.

Switching our focus now to the impact of this study on the research literature, these results are consistent with existing theory about network groups (Friedman, 1996) and are consistent with emerging findings on the value of “social capital.” Seibert et al. (2000), for example, found that two measures of network structure—weak ties and structural holes—positively relate to the level of social resources embedded in a person’s network, as measured by the number of developmental contacts outside of one’s own functional area and at higher levels in the organization. These social resources were positively related to current salary, number of promotions over the career, and career satisfaction. Our findings support this emerging literature on social capital, which points to similarities between minority and nonminority employees. Finally, our findings are also consistent with emerging theory about the importance of social embeddedness as a key factor affecting employee turnover (Mitchell et al., 2001). The more connected a person is professionally and socially at work, the more likely it is that they will stay in their organizations.

Encourage the most highly skilled employees to be leaders of network groups, and help them build contacts with experienced network group leaders in other companies.

Limitations

One limitation of this study is that our data is not longitudinal; there is the possibility that the causal direction could be reversed. However, there is both strong theory and data suggesting that mentoring does follow from network group formation (Friedman, 1996; Friedman et al., 1998) and that social embeddedness diminishes turnover intentions (Mitchell et al., 2001). Moreover, it is unlikely that we would have found the set of mediating effects we did (showing that joining network groups affects social embeddedness, which accounts for much of the impact of network groups on turnover) if the causal direction were reversed. Also, the association found between network groups and mentoring in another study (Friedman et al., 1998) could not possibly be due to reverse causation since that study compared responses across companies. Even if causality can be questioned, we do know from this study that

there is an association between joining a network group and having lower turnover intentions among managerial employees. Still, an ideal design for future research would measure turnover intentions before and after people joined network groups.

In conclusion, organizations that support network groups may be more likely to retain minority employees than those that do not. Moreover, efforts to encourage high-level minority employees to participate may increase the effectiveness of these groups. As firms wage the war to attract and retain top minority talent, it appears that the relatively low cost of supporting employee network groups provides a significant return.

We would like to thank the Center for Human Resource Management at University of Illinois for funding this project, managers at the company we studied for their support, and Adam Long, Simon Tidd, and Mary Dietrich for their advice and assistance.

APPENDIX I Exploratory Factor Analysis of Turnover Intention, Network Support, Social Inclusion, and Network Satisfaction Items

Factors:	1	2	3
Turnover intentions			
1. I would be happy to spend the rest of my career at this company.	-.87		
2. To what extent have you seriously thought about changing companies?*	.86		
Social inclusion			
1. I do not feel a strong sense of "belonging" to this company.*		.81	
2. When I have problems at this company, there is no one I can turn to.*		.67	
3. I do not feel like "part of the family" at this company.*		.79	
Network satisfaction			
1. Overall, I am satisfied with this group.			.84
2. This group has made a positive difference in my life at this company.			.90
3. This group helps with my career.			.84
4. This group is not really relevant to my life at this company.*			-.68
5. This group has benefited only a few people.*			-.67
Eigenvalue	1.57	1.81	3.16
Percentage of variance explained (rotated factors)	15.7	18.1	31.6
Coefficient alpha	.71	.71	.82

Note:* Indicates reverse-scored item.

RAYMOND A. FRIEDMAN (Ph.D., University of Chicago) is Associate Professor of Management at the Owen Graduate School of Management, Vanderbilt University. His research interests include negotiation, dispute resolution, labor relations, and the management of diversity. He has published articles in academic journals such as *Administrative Science Quarterly*, *Journal of Personality and Social Psychology*, and *Organization Science*, and has consulted to corporations about employee network groups and negotiation. He has been Chair of the Conflict Management Division of the Academy of Management, and is currently Associate Editor of the *International Journal for Conflict Management*.

BROOKS HOLTOM is currently a Visiting Assistant Professor of Management at Georgetown University. He has worked previously at Marquette University and Vanderbilt University. He earned his Ph.D. in Organizational Behavior at the University of Washington. His primary research interests include employee retention and alternative work arrangements. His work has appeared in academic journals such as *Academy of Management Journal*, *Academy of Management Executive*, *Journal of Applied Psychology*, and *Human Resource Management Review*. He has consulted with a wide variety of organizations both nationally and internationally to improve employee retention and performance.

REFERENCES

- Alderfer, C. (1992). Changing race relations embedded in organizations: Report on a long-term project within XYZ Corporation. In S. Jackson et al. (Eds.), *Diversity in the workplace: Human resource initiatives* (pp. 138–166). New York: Guilford Press
- Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
- Burt, R.S. (1997). The contingent value of social capital. *Administrative Science Quarterly*, 42, 339–365.
- Childs, J.B. (1992). Constructive disputing: The ramifications of African-American caucuses for today's organization. *Studies in Law, Politics, and Society*, 12, 177–197.
- Cohen, S.G., & Bailey, D.E. (1997). What makes teams work: Group effectiveness research from the shop floor to the executive suite. *Journal of Management*, 23, 239–290.
- Creed, D., & Scully, M. (1998, August). Switchpersons on the tracks of history: Situated agency and contested legitimacy in the diffusion of domestic partner benefits. Paper presented at the Meeting of the Academy of Management, San Diego, CA.
- Crump, W. (1988). Executive accountability. In D. Thompson. & N. DiTomaso (Eds.), *Ensuring minority success in corporate management* (pp. 253–258). New York: Plenum.
- French, J.R., & Raven, B. (1968). The bases of social power. In D. Cartwright & A. Zander (Eds.), *Group dynamics* (3rd ed., pp. 259–269). New York: Harper & Row.
- Friedman, R. (1996). Defining the scope and logic of minority and female network groups: Can separation enhance integration? In G. Ferris (Ed.), *Research in personnel and human resources management* (pp. 307–349). London: JAI Press.
- Friedman, R., & Bogar, E. (1999). Trends in corporate policy development around employee network groups. Working paper, Owen Graduate School of Management, Vanderbilt University.
- Friedman, R., & Deinard, C. (1996). Black caucus groups at Xerox Corporation. In M. Gentile (Ed.), *Managerial excellence through diversity: Text and cases* (pp. 300–313). Chicago: Irwin.
- Friedman, R., Kane, M., & Cornfield, D. (1998). Social support and career optimism: An empirical test of network group effectiveness among black managers. *Human Relations*, 51, 1155–1177.
- Gold, M. (1993). *An introduction to the low of employment discrimination*. Ithaca, NY: ILR Press.
- Granovetter, M.S. (1973). The strength of weak ties. *American Journal of Sociology*, 78, 1360–1380.
- Griffeth, R.W., Hom, P.W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of

- employee turnover: Update, moderator tests, and research implications for the millennium. *Journal of Management*, 26, 463–488.
- Hackman, J.R., & Oldham, G.R. (1980). *Work redesign*. Reading, MA: Addison-Wesley.
- Hall, D.T., Schneider, B., & Nygren, H.T. (1970). Personal factors in organizational identification. *Administrative Science Quarterly*, 15, 176–189.
- Hill, L.A. (1992). *Becoming a manager: Mastery of a new identity*. Boston, MA: Harvard Business School Press.
- Hyde, A. (1993). Employee caucus: A key institution in the emerging system of employment law. *Chicago-Kent Law Review*, 69(1), 149–193.
- Ibarra, H. (1993). Personal networks of women and minorities in management: A conceptual framework. *Academy of Management Review*, 18(1), 56–87.
- Ibarra, H. (1995). Race, opportunity, and diversity of social circles in managerial networks. *Academy of Management Journal*, 38(3), 672–703.
- Jackson, S., et al. (Eds.). (1992). *Diversity in the workplace: Human resources initiatives*. New York: Guilford Press.
- Kilduff, M., & Krackhardt, D. (1994). Bringing the individual back in: A structural analysis of the internal market for reputation in organizations. *Academy of Management Journal*, 37, 87–109.
- Kotter, J.P. (1982). *The general managers*. New York: Free Press.
- Kram, E.E. (1985). *Mentoring at work: Developmental relationships in organizational life*. Glenview, IL: Scott, Foresman.
- Lee, T.W., Mitchell, T.R., Holtom, B.C., McDaniel, L., & Hill, J.W. (1999). Theoretical development and extension of the unfolding model of voluntary turnover. *Academy of Management Journal*, 42, 450–462.
- Levinson, D.J., Darrow, C.N., Klein, E.B., Levinson, M.H., & McKee, B. (1978). *The seasons of a man's life*. New York: Knopf.
- Lynch, F.R. (1997). *The diversity machine*. New York: Free Press.
- Maertz, C.P., & Campion, M.A. (1998). 25 years of voluntary turnover research: A review and critique. *International Review of Industrial and Organizational Psychology*, 13, 49–81.
- March, J.G., & Simon, H.A. (1958). *Organizations*. New York: John Wiley.
- McPherson, J.M., & Smith-Lovin, L. (1986). Sex segregation in voluntary associations. *American Sociological Review*, 52, 61–79.
- McPherson, J.M., & Smith-Lovin, L. (1987). Homophily in voluntary organizations: Status distance and the composition of face-to-face groups. *American Sociological Review*, 52(3), 370–379.
- Mitchell, T.R., Holtom, B.C., Lee, T.W., Sablinsky, C., & Erez, M. (2001). Why people stay: Using job embeddedness to predict voluntary turnover. *Academy of Management Journal*, 44, 1102–1121.
- Murray, M., & Owen, M. (1991). *Beyond the myths and magic of mentoring*. San Francisco: Jossey-Bass.
- Pfeffer, J. (1992). *Managing with power: Politics and influence in organizations*. Boston, MA: Harvard Business School Press.
- Ragins, B.R., Cotton, J.L., & Miller, J.S. (2000). Marginal mentoring: The effects of type of mentor, quality of relationship, and program design on work and career attitudes. *Academy of Management Journal*, 43, 1177–1194.
- Reichers, A. (1985). A review and reconceptualization of organizational commitment. *Academy of Management Review*, 10, 465–476.
- Seibert, S.E., Kraimer, M.L., & Liden, R.C. (2001). A social capital theory of career success. *Academy of Management Journal*, 42, 219–237.
- Spreitzer, G.M. (1996). Social structural characteristics of psychological empowerment. *Academy of Management Journal*, 39, 483–504.
- Steel, R.P., & Ovalle, N. (1984). A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover. *Journal of Applied Psychology*, 69, 673–686.
- Tett, R., & Meyer, J. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analyses based on meta-analytic findings. *Personnel Psychology*, 46, 259–293.
- Thomas, D. A. (1990). The impact of race on managers' experiences of developmental relationships (mentoring and sponsorship): An intra-organizational study. *Journal of Organizational Behavior*, 11(6), 479–492.
- Thomas, R. (1990, March–April). From affirmative action to affirming diversity. *Harvard Business Review*, 107–117.
- Thompson, D., DiTomaso, N., & Blake, D. (1988). An overview of corporate policies and practices. In D. Thompson, D. Blake, & N. DiTomaso (Eds.), *Ensuring minority success in corporate management* (pp. 303–319). New York: Plenum.
- Triandis, H. (1995). A theoretical framework for the

study of diversity. In M. Chemers, S. Oskamp, & M. Costanzo (Eds.), *Diversity in organizations: New perspectives for a changing workplace* (pp. 11–36). London: Sage.

ENDNOTES

1. Intention to quit has demonstrated the highest, most consistent bivariate relationship to turnover behavior, $r = .50$ (Steel & Ovalle, 1984). Tett and Meyer (1993) reported a meta-analytic correlation between multiple item measures of turnover intention and turnover of $r = .65$. Since turnover intentions are a reliable indicator of actual turnover, and the data we have is about turnover intentions rather than actual turnover, our hypotheses will focus on turnover intentions.
2. We excluded from our analysis members of the gay/lesbian groups because to assess joining, we needed to be able to identify people from that group who chose not to join, as well as those who did join. Since the company would not allow us to ask all employees about their sexual orientation, we could not assess joining among gays or lesbians. We also excluded members of the women's group. There was not widespread familiarity with the women's group throughout the company as was the case for the Black, Hispanic, and Asian groups. Thus, the entire population of women was not really a viable target population for the women's group (the women's group was based largely in one of the mid-sized cities within one state). We excluded the American Indians and disabled groups, because the numbers of employees in those groups were so small (under 20 in each group). The groups with the greatest penetration throughout the company and visibility to employees were those that focused on Black, Hispanic, and Asian employees. African American groups had been formed in nearly every region of the company, and groups were available for Hispanic and Asian employees in the regions where most of these employees lived, making these groups most appropriate for a study of joining. We could add to our analysis members of the women's, gay/lesbian, and disability groups when we analyze models that only included network groups members, but we chose not to do so to make the samples comparable.
3. Response rates in individual cells varied from 0% (in cells where the n was very small, such as female American Indian top executives) to 67% (again, in cells where the n was very small). Response rates were higher in one half of the company (30%) than the other (22%), they were higher for top-level managers (33% for level 2 and 28% for level 3) than first-level managers (22%) or craft-level employees (22%). For that reason, we included these indicators as controls in the analyses reported below. Male and female responses rates were equal. Response rates for whites were lowest (19%), slightly higher for Asians (23%), a bit higher for Blacks and American Indians (both 28%), and highest for Hispanics (32%). Note that some respondents were not included in these cell-by-cell analyses if they did not provide demographic data in their responses, or if they indicated that they were of mixed race.
4. It is possible that someone could have filled out a survey twice, but highly unlikely. Most people find it bothersome to fill out surveys; thus, follow-up surveys were sent only to groups where there already was a very low number of respondents, and group leaders reiterated our instructions in their own letters to members.
5. Since these findings were not significant, and to limit the complexity of the tables, we did not include this model in the table.